Extensions to enable wireless reliability and availability in multi-access edge deployments

draft-bernardos-detnet-raw-mec-00

IETF 118 – DetNet WG

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Aim and scope

- Explore integration of RAW and edge computing (adopting the ETSI MEC architecture as baseline) technologies
- 2 documents so far:
  - Extensions to enable wireless reliability and availability in multi- access edge deployments
    - draft-bernardos-detnet-raw-mec-00
  - Terminal-based joint selection and configuration of MEC host and RAW network (not covered in this presentation)
    - draft-bernardos-detner-raw-joint-selection-raw-mec-00

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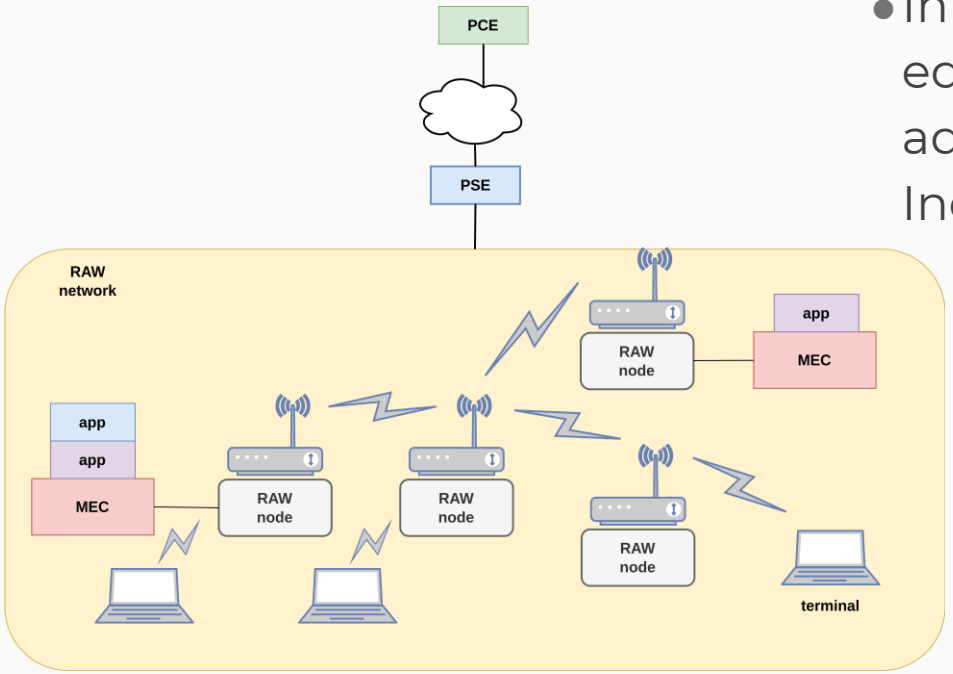
Scope



- Integration of RAW and multi-access edge computing (MEC) brings advantages in several scenarios, e.g., Industry 4.0 and 5G URLLC
  - This scenario includes a **RAW-enabled wireless domain**, involving **multiple MEC platforms** to ensure low latency to applications, by being able to host MEC applications in several locations, and dynamically migrate the apps as the terminals move around and the serving MEC platform might no longer be capable of meeting the latency requirements

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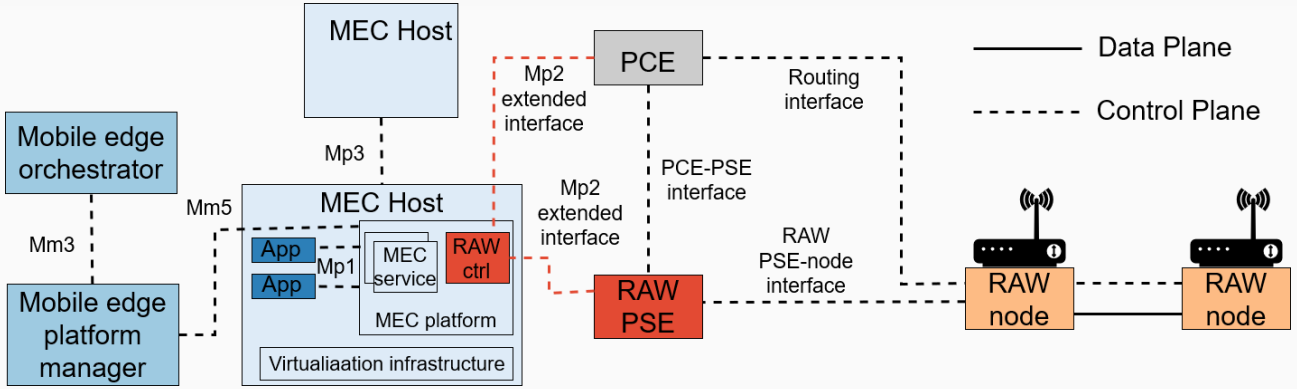
RAW and MEC integration



- RAW ctrl: new entity inside the MEC platform responsible for computing what to instruct the RAW PSE, based on the requirements of the MEC apps, as well as to take decisions at the MEC side (e.g., migration of apps) based on information about the RAW network status
  - New semantics on the interface between the MEC platform and the RAW PSE to convey the requests, and synchronize the status and topology of the RAW network, enabling to perform real-time or near-real time forwarding decisions

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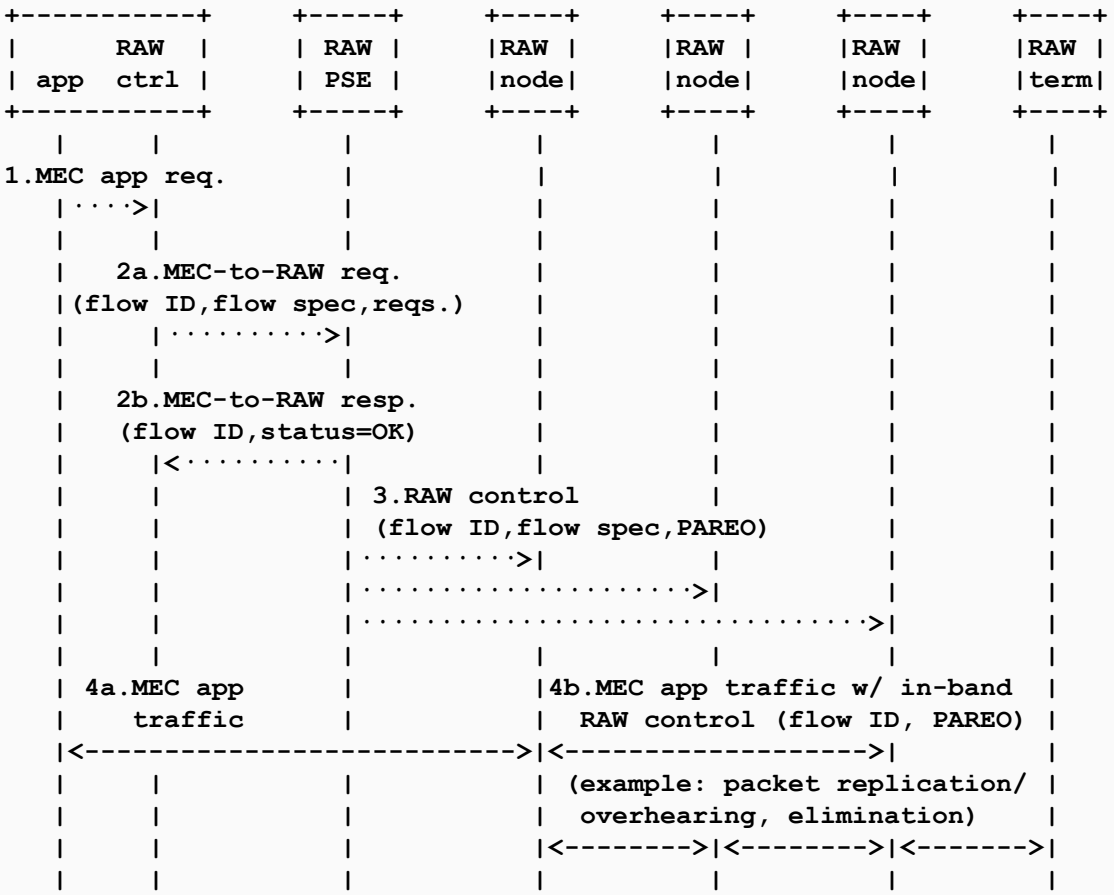
RAW and MEC integration

- The draft includes exemplary procedures enabled by the RAW-MEC interface:
  - MEC app request for RAW
  - RAW OAM triggering MEC app migration
  - MEC OAM for RAW updates

RAW and MEC integration: MEC app request for RAW



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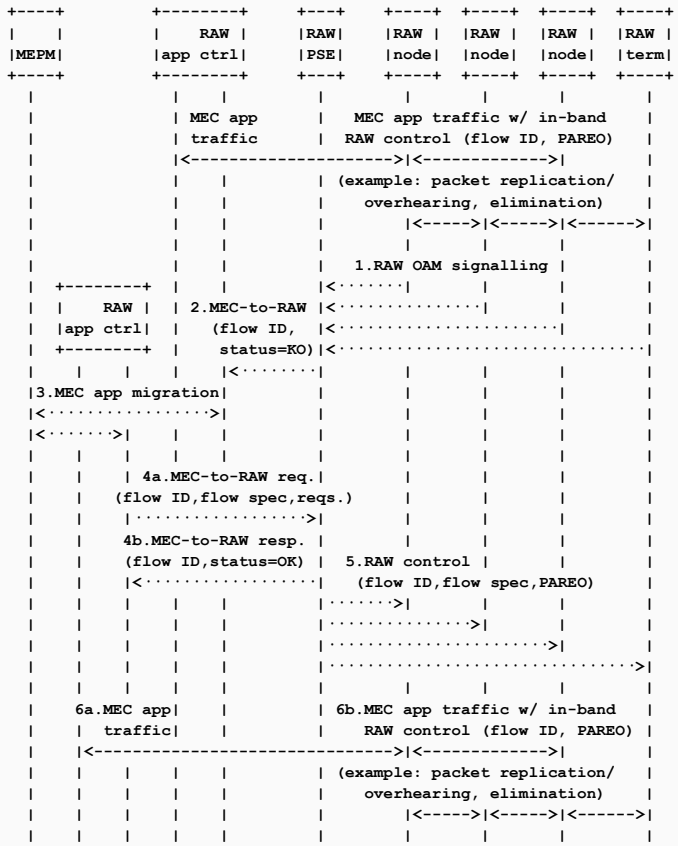
RAW and MEC integration: RAW OAM triggering MEC app migration



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Summary and next steps

- Work presented in the RAW WG
  - Good feedback, but it was early to look on extensions
- Is there interest in working on this in the WG?
  - Potential new protocol work might be needed
- Please share your comments on the ML!

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Acknowledgements

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